



<b>Title of Change:</b>	Henkel Green Compound Qualification for SOT23 package.							
<b>Proposed Changed Material First Ship Date:</b>	25 April 2019							
<b>Current Material Last Order Date:</b>	9 October 2018							
<b>Current Material Last Delivery Date:</b>	8 April 2019							
<b>Product Category:</b>	Active components – Discrete components							
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or < <a href="mailto:alex.zhang@onsemi.com">alex.zhang@onsemi.com</a> >							
<b>Samples:</b>	Contact your local ON Semiconductor Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification.							
<b>Sample Availability Date:</b>	9 June 2018							
<b>PPAP Availability Date:</b>	9 June 2018							
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or < <a href="mailto:ruizhang@onsemi.com">ruizhang@onsemi.com</a> >							
<b>Type of Notification:</b>	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact < <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> >.							
<b>Change Category:</b>	<b>Type of Change</b>							
Process – Assembly	Change of mold compound							
<b>Description and Purpose:</b>								
ON Semiconductor is notifying customers of its use of Henkel mold compound for SOT23 Discrete products built with bipolar transistor, Zener diode, Schottky diode, switching diode, JFET and MOSFET are represented by this Process Change Notice.								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Material to be changed</th> <th style="width: 35%;">Before Change Description</th> <th style="width: 35%;">After Change Description</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td>Hitachi GE200F</td> <td>Henkel GR640 HV</td> </tr> </tbody> </table>		Material to be changed	Before Change Description	After Change Description	Mold Compound	Hitachi GE200F	Henkel GR640 HV
Material to be changed	Before Change Description	After Change Description						
Mold Compound	Hitachi GE200F	Henkel GR640 HV						
<b>Reason / Motivation for Change:</b>	<ul style="list-style-type: none"> <li>- Quality Improvement.</li> <li>- Potential quality risk.</li> <li>- Quality improvement, Yes, new compound has better property to improve package encapsulation performance.</li> </ul>							
<b>Anticipated impact on fit, form, function, reliability, product safety or manufacturability</b>	<p>The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by ON Semiconductor in relation to the PCN, associated risks are verified and excluded.</p> <p>No anticipated impacts.</p>							



<b>Sites Affected:</b>	ON Semiconductor Sites: ON Leshan, China	External Foundry/Subcon Sites: None
<b>Marking of Parts/ Traceability of Change:</b>	Trace the change by a date code	

**Reliability Data Summary:**

**QV DEVICE NAME: SMMBTA42LT1G/SMMBTA92LT1G**  
**PACKAGE: SOT23**

Test	Specification	Condition	Interval	Result
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	-
UHAST	JESD22-A118	Ta=130C, 85% RH, no bias, 96 hrs	96 hrs	0/231
TC	JESD22-A104	Ta= - 65°C to +150°C	2000 <u>cyc</u>	0/231
HAST	JESD22-A110	130C/85%RH, 80% rated V or 42V max, 192 hours.	192 hrs	0/231
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 <u>cyc</u>	0/231
HTRB	JESD22- A108	Tj= max, V=100% rated V, 1008 Hrs	2016 hrs	0/231
HTSL	JESD22- A103	Temp.=150°C,no bias,2016hours	2016 hrs	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/231

**QV DEVICE NAME: SZMMBZ5270BLT1G**  
**PACKAGE: SOT23**

Test	Specification	Condition	Interval	Result
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	-
UHAST	JESD22-A118	Ta=130C, 85% RH, no bias, 96 hrs	96 hrs	0/231
TC	JESD22-A104	Ta= - 65°C to +150°C	2000 <u>cyc</u>	0/231
HAST	JESD22-A110	130C/85%RH, 80% rated V or 42V max, 192 hours.	192 hrs	0/231
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 <u>cyc</u>	0/231
HTRB	JESD22- A108	Tj= max, V=100% rated V, 1008 Hrs	2016 hrs	0/231
HTSL	JESD22- A103	Temp.=150°C,no bias,2016hours	2016 hrs	0/231
SSOP	MILSTD750-1	Tj= max, V=100% rated IZ max, 2016 Hrs	2016hrs	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30



QV DEVICE NAME: SZMMBZ47VALT1G  
PACKAGE: SOT23

Test	Specification	Condition	Interval	Result
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	-
UHAST	JESD22-A118	Ta=130C, 85% RH, no bias, 96 hrs	96 hrs	0/231
TC	JESD22-A104	Ta= - 65°C to +150°C	2000 <u>cyc</u>	0/231
HAST	JESD22-A110	130C/85%RH, 80% rated V or 42V max, 192 hours.	192 hrs	0/231
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 <u>cyc</u>	0/231
HTRB	JESD22- A108	Tj= max, V=100% rated V, 1008 Hrs	2016hrs	0/231
HTSL	JESD22- A103	Temp.=150°C,no bias,2016hours	2016 hrs	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30

QV DEVICE NAME: BVSS123LT1G  
PACKAGE: SOT23

Test	Specification	Condition	Interval	Result
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	-
UHAST	JESD22-A118	Ta=130C, 85% RH, no bias, 96 hrs	96 hrs	0/231
TC	JESD22-A104	Ta= - 65°C to +150°C	2000 <u>cyc</u>	0/231
HAST	JESD22-A110	130C/85%RH, 80% rated V or 42V max, 192 hours.	192 hrs	0/231
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 <u>cyc</u>	0/231
HTRB	JESD22- A108	Tj= max, V=100% rated V, 1008 Hrs	2016 hrs	0/231
HTGB	JESD22- A108	Ta= max, Vgs=100%, 2016 Hrs	2016 hrs	0/231
HTSL	JESD22- A103	Temp.=150°C,no bias,2016hours	2016 hrs	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30

**Electrical Characteristic Summary:**

Electrical characteristics are not impacted.



## List of Affected Standard Parts:

Current Part Number	Qualification Vehicle
2V7002KT1G	BVSS123LT1G
BVSS84LT1G	BVSS123LT1G
MMBFV170LT3G	BVSS123LT1G
NVR4003NT3G	BVSS123LT1G
SBSS84LT1G	BVSS123LT1G
SMMBD7000LT3G-AU	SMMBTA42LT1G
NSVBAS70LT1G	SMMBTA42LT1G
NSVBAT54LT1G	SMMBTA42LT1G
SBAS40LT1G	SMMBTA42LT1G
SBAS40LT3G	SMMBTA42LT1G
SBAT54CLT1G	SMMBTA42LT1G
NSVMMD353LT1G	SMMBTA42LT1G
SBAS40-04LT1G	SMMBTA42LT1G
SBAS40-06LT1G	SMMBTA42LT1G
SBAT54ALT1G	SMMBTA42LT1G
SBAT54ALT3G	SMMBTA42LT1G
SBAT54SLT1G	SMMBTA42LT1G
SMMBF4393LT1G	SMMBTA42LT1G
SMMBFJ309LT1G	SMMBTA42LT1G
SMMBFJ175LT1G	SMMBTA92LT1G
SMMBFJ177LT1G	SMMBTA92LT1G
SMBZ1443LT3DSG	SZMMBZ5270BLT1G
SMBZ1449-10LT3G	SZMMBZ5270BLT1G
SMBZ1449-11LT3G	SZMMBZ5270BLT1G
SZBZX84B5V1LT1G	SZMMBZ5270BLT1G



SZBZX84B5V6LT1G	SZMMBZ5270BLT1G
SZBZX84B6V2LT1G	SZMMBZ5270BLT1G
SZBZX84B7V5LT1G	SZMMBZ5270BLT1G
SZBZX84B8V2LT1G	SZMMBZ5270BLT1G
SZBZX84B9V1LT1G	SZMMBZ5270BLT1G
SZBZX84B9V1LT3G	SZMMBZ5270BLT1G
SZBZX84C2V4ET1G	SZMMBZ5270BLT1G
SZBZX84C3V3ET1G	SZMMBZ5270BLT1G
SZBZX84C3V3LT1G	SZMMBZ5270BLT1G
SZBZX84C3V3LT3G	SZMMBZ5270BLT1G
SZBZX84C3V6ET1G	SZMMBZ5270BLT1G
SZBZX84C3V9LT1G	SZMMBZ5270BLT1G
SZBZX84C4V3LT1G	SZMMBZ5270BLT1G
SZBZX84C4V3LT3G	SZMMBZ5270BLT1G
SZBZX84C4V7ET1G	SZMMBZ5270BLT1G
SZBZX84C4V7LT1G	SZMMBZ5270BLT1G
SZBZX84C4V7LT3G	SZMMBZ5270BLT1G
SZBZX84C5V1ET1G	SZMMBZ5270BLT1G
SZBZX84C5V1ET3G	SZMMBZ5270BLT1G
SZBZX84C5V1LT1G	SZMMBZ5270BLT1G
SZBZX84C5V1LT3G	SZMMBZ5270BLT1G
SZBZX84C5V6ET1G	SZMMBZ5270BLT1G
SZBZX84C5V6ET3G	SZMMBZ5270BLT1G
SZBZX84C5V6LT1G	SZMMBZ5270BLT1G
SZBZX84C5V6LT3G	SZMMBZ5270BLT1G
SZBZX84C6V2ET1G	SZMMBZ5270BLT1G
SZBZX84C6V2ET3G	SZMMBZ5270BLT1G
SZBZX84C6V2LT1G	SZMMBZ5270BLT1G



SZBZX84C6V2LT3G	SZMMBZ5270BLT1G
SZBZX84C6V8ET1G	SZMMBZ5270BLT1G
SZBZX84C6V8LT1G	SZMMBZ5270BLT1G
SZBZX84C6V8LT3G	SZMMBZ5270BLT1G
SZBZX84C7V5ET1G	SZMMBZ5270BLT1G
SZBZX84C8V2ET1G	SZMMBZ5270BLT1G
SZBZX84C8V2ET3G	SZMMBZ5270BLT1G
SZBZX84C8V2LT1G	SZMMBZ5270BLT1G
SZBZX84C8V2LT3G	SZMMBZ5270BLT1G
SZBZX84C9V1LT1G	SZMMBZ5270BLT1G
SZBZX84C9V1LT3G	SZMMBZ5270BLT1G
SZMMBZ5222BLT1G	SZMMBZ5270BLT1G
SZMMBZ5225BLT1G	SZMMBZ5270BLT1G
SZMMBZ5226BLT1G	SZMMBZ5270BLT1G
SZCM1214A-01SO	SZMMBZ5270BLT1G
SZMMBZ5228BLT1G	SZMMBZ5270BLT1G
SZMMBZ5229BLT1G	SZMMBZ5270BLT1G
SZMMBZ5230BLT1G	SZMMBZ5270BLT1G
SZMMBZ5231BLT1G	SZMMBZ5270BLT1G
SZMMBZ5231BLT3G	SZMMBZ5270BLT1G
SZMMBZ5231ELT1G	SZMMBZ5270BLT1G
SZMMBZ5232BLT1G	SZMMBZ5270BLT1G
SZMMBZ5232BLT3G	SZMMBZ5270BLT1G
SZMMBZ5234BLT1G	SZMMBZ5270BLT1G
SZMMBZ5234BLT3G	SZMMBZ5270BLT1G
SZMMBZ5236BLT1G	SZMMBZ5270BLT1G
SZMMBZ5237BLT1G	SZMMBZ5270BLT1G
SZMMBZ5239BLT1G	SZMMBZ5270BLT1G



SZMMBZ5239ELT1G	SZMMBZ5270BLT1G
SZBZX84B3V3LT1G	SZMMBZ5270BLT1G
SZBZX84B4V7LT1G	SZMMBZ5270BLT1G
SZNUP1301ML3T1G	SZMMBZ5270BLT1G